

LECTOTYPE DESIGNATIONS AND TAXONOMIC REMARKS
ON SOME XANTHOLININE GENERA AND SPECIES FROM
CENTRAL AND SOUTH AMERICA
(COLEOPTERA: STAPHYLINIDAE)*

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ABSTRACT

The type material of several xantholinine species from Central and South America was studied. The genus *Saurohypnus* Sharp 1885, with type-species *S. scutellaris* Sharp 1885, is placed in synonymy with *Thyreocephalus* Guérin-Méneville 1844. The New World species of the genus *Oligolinus* auct. (nec Casey 1906) are reassigned to *Neoxantholinus* Cameron 1944. Lectotypes are designated for *Diochus nanus* Erichson 1839, *Homalolinus canaliculatus* (Erichson 1839), *Thyreocephalus scutellaris* (Sharp 1885), *T. puncticeps* Sharp 1885, *T. rufipennis* Sharp 1885, *Neoxantholinus guatemalensis* (Sharp 1885), and *N. lineatus* (Schubert 1909). *Thyreocephalus halffteri* (Mexico) is described as new, and a key to Mexican species related to *T. rufipennis* is given.

Recently, I studied the original material of some Central and South American Xantholininae. None of these species was known to occur north of Mexico, but I needed to compare them with some species included in my revision of Xantholininae of America north of Mexico (in preparation). The results of this study, including lectotype designations, are presented here.

The original specimens from the Sharp collection were made available to me by P. M. Hammond, British Museum (Natural History), London, and those from the Erichson collection by M. Uhlig, Museum für Naturkunde der Humboldt-Universität zu Berlin, German Democratic Republic. Their assistance is gratefully acknowledged.

I also wish to thank my colleagues, E. C. Becker, D. E. Bright, and J. M. Campbell, in the Coleoptera Unit of the Biosystematics Research Institute, for their suggestions and criticisms of the manuscript.

Diochus nanus Erichson

Diochus nanus Erichson 1839:301, pl. 1, fig. 6

The Erichson collection in the Museum für Naturkunde der Humboldt-Universität zu Berlin contains 2 conspecific specimens under the name *D. nanus*. The first specimen is labelled as follows: "5793"/"nanus Er. Columb. Mor." (large green label). The second specimen is without any labels. Both specimens were dissected and the genital segments with spermathecae were mounted in Canada balsam. The first specimen, bearing the

*108th contribution to the knowledge of Staphylinidae.

label "5793", is hereby designated as lectotype of *D. nanus*; the label "Lectotype *Diochus nanus* Erichson A. Smetana des. 1977" was attached to it.

One female from a series of 4 specimens in the Canadian National Collection, collected in Brazil ("Brazil, 18 km. NE Oriximina, XI-13, 14-1969, J M & B A Campbell"), matches the lectotype in every detail. The red label "*Diochus nanus* Er., compared with lectotype, Smetana 1977" was attached to it. One male from the same series, which I believe is conspecific with this female, was dissected and the terminal abdominal segments (including the genital segment) and the aedoeagus were mounted. These parts are illustrated by Figs. 1-4.

D. schaumii Kraatz (1860:27), widely distributed in America north of Mexico, was occasionally considered conspecific with *D. nanus* (e.g. Blackwelder 1943:455). In fact, *D. nanus* and *D. schaumii* are different species, as shown by Figs. 5-8, illustrating the terminal abdominal segments (including the genital segment) and the aedoeagus of one male of *D. schaumii*, which has been compared with the specimens of Kraatz's original series. Even the female spermathecae seem to be different in these 2 species (Figs. 9, 10).

Homalolinus canaliculatus (Erichson)

Xantholinus canaliculatus Erichson 1839:307

The Erichson collection in the Museum für Naturkunde der Humboldt-Universität zu Berlin contains 4 conspecific specimens under the name *X. canaliculatus*. The first specimen is labelled as follows: "5803"/"canaliculatus Dej. Bogota Bug." (large green label). The remaining 3 specimens are without any labels. The first specimen, bearing the label 5803, was dissected, remounted on a plate, and the aedoeagus and the genital segment were mounted. These parts are illustrated by Figs. 11, 12, 24. This specimen is hereby designated as lectotype of *H. canaliculatus*; the label "Lectotype *Xantholinus canaliculatus* Erichs. A. Smetana des. 1977" was attached to it. Nine segments of the left antenna, 4 segments of the right antenna, middle left tarsus, and middle right leg are missing in this specimen.

Thyrecephalus Guérin-Méneville

Thyrecephalus Guérin-Méneville 1844:10

Saurohypnus Sharp 1885:501 (**new synonymy**)

Adults of the type-species of *Saurohypnus*, *S. scutellaris* (see below), differ by the relatively small size, the narrow form, and the general habitus from those of the remaining neotropical species of *Thyrecephalus* known to me; however, I was unable to find any characters which would justify its generic separation. The name *Saurohypnus* should be considered a synonym of *Thyrecephalus*.

Thyrecephalus scutellaris (Sharp), **new combination**

Saurohypnus scutellaris Sharp 1885:502

The species was described from specimen(s?) from Pinos Altos in Chihuahua, Mexico. I have seen one specimen (apparently a female) from the collection of the British Museum (Natural History), London, labelled as follows: "*Saurohypnus scutellaris* Type D.S. Pinos Altos Chihuahua. B.-

Hepburn" (on plate with beetle)/"Type" (round label with red margin)/"Pinos Altos, Chihuahua, Mexico. Buchanan-Hepburn."/"B.C.A.Col.I.2. Saurohypnus scutellaris, Sharp."/"Sharp Coll.1905.-313." The specimen is hereby designated as lectotype of *S. scutellaris*; the label "Lectotype Saurohypnus scutellaris Sharp A.Smetana des. 1977", and my determination label "Thyrecephalus scutellaris (Shp.)" were attached to it.

One specimen labelled: "Tup"/"Mexico Coll.J.Flohr"/"scutellaris Sharp sec.Fauvel"/"Xantholinus dugesi" in the collection of the Museum für Naturkunde der Humboldt-Universität zu Berlin was compared with the lectotype; the red label "Comp. with lectotype Saurohypnus scutellaris Shp., A.Smetana March 1977" was attached to it.

Thyrecephalus puncticeps Sharp

Thyrecephalus puncticeps Sharp 1885:501

The species was described from 2 specimens from Uruapan and Juquila, Mexico. I had the opportunity to study 1 female specimen from the collection of the British Museum (Natural History), London, labelled as follows: "Thyrecephalus puncticeps Type. D.S.Uruapan.Mexico.Flohr." (on plate with beetle)/"Type" (round label with red margin)/"Uruapan, Mexico.Flohr."/"B.C.A.Col.I,2 Thyrecephalus puncticeps,Sharp."/"Sharp Coll.1905.-313." The specimen (3 apical segments of the left antenna, 2 apical segments of left front tarsus, and right metatarsus are missing) is hereby designated as lectotype of *T. puncticeps*; the label "Lectotype Thyrecephalus puncticeps Sharp A.Smetana des.1977" was attached to it.

Two specimens labelled "Uruapan 13"/"Mexico Coll.J.Flohr" and 1 specimen labelled:"Juquila 15"/"Mexico Coll.J.Flohr" in the collection of the Museum für Naturkunde der Humboldt-Universität zu Berlin were compared with the lectotype. One male from Uruapan was dissected and the aedoeagus and the genital segment were mounted. These parts are illustrated by Figs. 13, 14, 27. The red label "Thyrecephalus puncticeps Shp. compared with lectotype, Smetana 1977" was attached to this specimen.

Thyrecephalus rufipennis Sharp

Thyrecephalus rufipennis Sharp 1885:500

The species was described from 3 specimens from Oaxaca (Mexico) and San Gerónimo (Guatemala). I had the opportunity to study 1 male specimen from the collection of the British Museum (Natural History), labelled as follows: "Thyrecephalus rufipennis.Type.D.S.Oaxaca.Mexico.Hoge."/"Type" (round label with red margin)/"Oaxaca,Mexico.Hoege."/"B.C.A.I.2.Thyrecephalus rufipennis,Sharp"/"Sharp Coll.1905.-313." The specimen (in perfect condition) was dissected, and the aedoeagus and genital segment were mounted. These parts are illustrated by Figs. 15, 16, 29. The specimen is hereby designated as lectotype of *T. rufipennis*; the label "Lectotype Thyrecephalus rufipennis Sharp A. Smetana des.1977" was attached to it.

Thyrecephalus halffteri Smetana, **new species**

Externally extremely similar to *T. rufipennis*, but different as follows:

size smaller, form narrower. Head smaller and distinctly narrower, as long as wide (in *T. rufipennis* l/w index = 0.92), only feebly rounded laterally, posterior angles broadly rounded, however not forming continuous arc with base of head and lateral margins as in *T. rufipennis*; punctuation of head denser, especially laterally and posteriorly; underside of head with more numerous punctures (in *T. rufipennis*, large areas of underside are almost without any punctures). Punctures on lateral portions of pronotum on average more numerous. Microsculpture on abdominal tergites slightly coarser.

Male. Tergite of genital segment of elongate pentagonal shape, apical margin more or less truncate and bearing numerous rather long bristles (Fig. 17). Sternite of genital segment very similar to that of *T. rufipennis* but narrower (Fig. 18). Aedeagus very similar to that of *T. rufipennis* but smaller and with internal sac differently developed (Figs. 28, 29).

Length 13.0-14.8 mm.

Type material. Holotype (male) and allotype (female): Mexico: "Mex. Tizapan el Alto Edo. de Jalisco, 19.VI.1968 G. Halffter". In the Canadian National Collection, Ottawa, Canada (CNC No. 15355).

Paratypes: same data as holotype, 1 male; "Tepic 30"/"Mexico Coll.J.Flohr"/"rufipennis Sh.", 1 male; "Mexico Tepic 30 Coll.Flohr", 1 male. In the Canadian National Collection, Ottawa, and in the Museum für Naturkunde der Humboldt-Universität zu Berlin.

Distribution. The species is known from the states of Nayarit and Jalisco in Mexico.

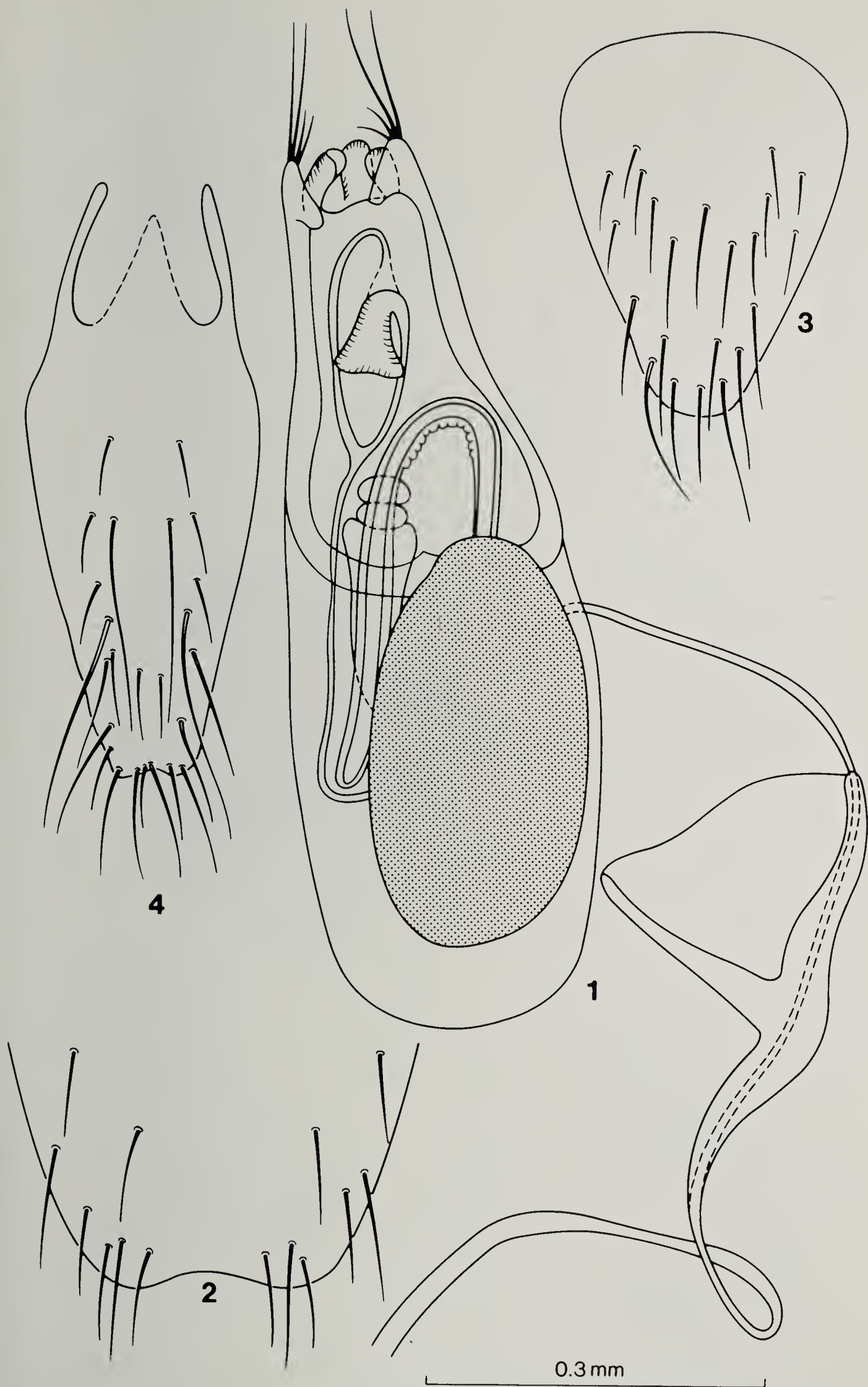
Bionomics. No details are known about the habits of this species.

Discussion. Adults of this species are easily distinguished from those of *T. rufipennis* by the characters given in the description. The length of the lectotype of *T. rufipennis* (with the abdomen slightly extended) is 17.0 mm. It differs from *T. puncticeps* adults, in addition to the differences in the male aedeagus, by the smaller size and narrower form, and the sparser punctuation of the underside of the head.

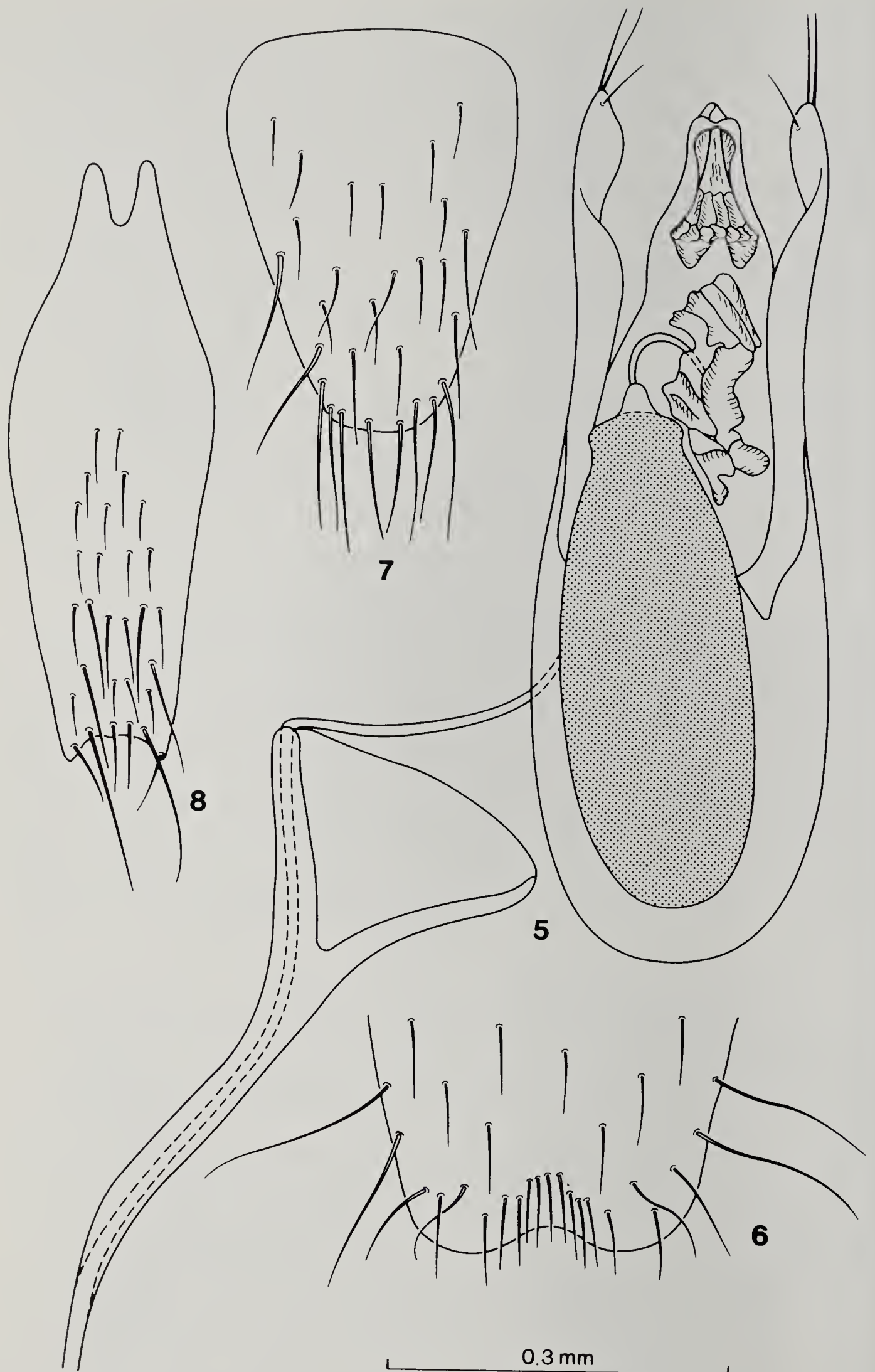
Etymology: the species is named in honour of Dr. G. Halffter, Museo de Historia Natural de la Ciudad de Mexico, who collected some specimens of the original series.

Adults of the 3 Mexican species with red elytra, closely related to *T. rufipennis*, can be distinguished as follows:

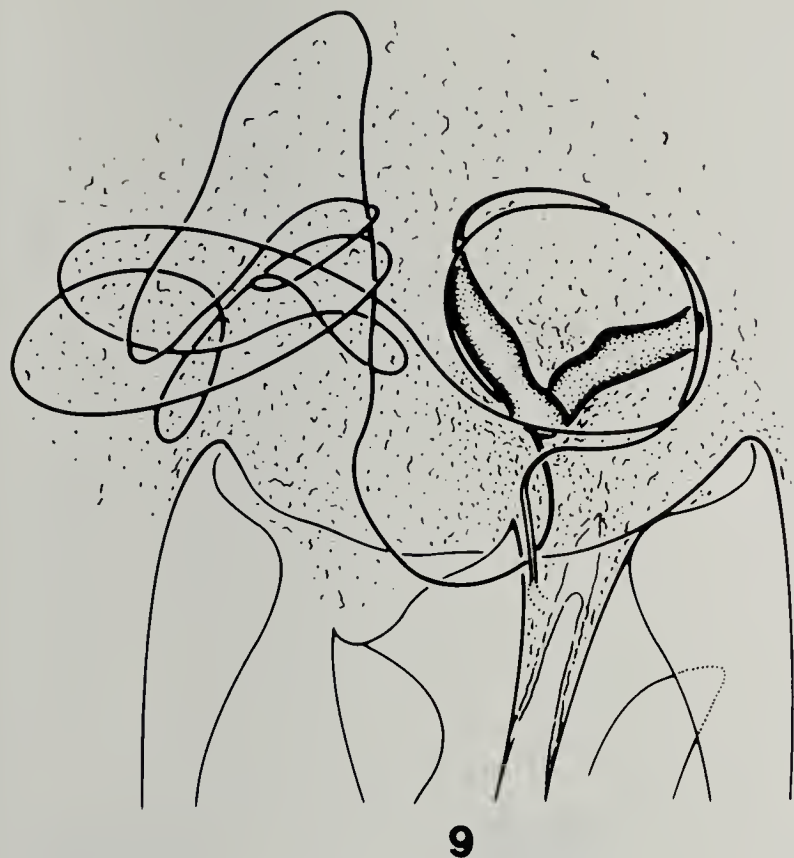
- 1(2). Aedeagus very large and voluminous (Fig. 27). Underside of head coarsely and densely punctate. Length 15.0-18.0 mm.....
..... *T. puncticeps* Sharp
- 1'. Aedeagus considerably smaller and not voluminous (Figs. 28, 29). Underside of head less coarsely and sparsely punctate..... 2
- 2(1'). Aedeagus as in Fig. 29. Head large and wide, slightly wider than long (l/w index = 0.92); lateral margins rounded, forming continuous arc with base of head, posterior angles therefore completely absent; underside of head very sparsely punctate. Size larger, form stouter. Length 17.0 mm *T. rufipennis* Sharp
- 2'. Aedeagus as in Fig. 28. Head smaller and distinctly narrower, as long as wide; lateral margins feebly rounded, posterior angles broadly rounded, however not forming continuous arc with base of head and lateral margins; underside of head sparsely punctate. Size smaller, form narrower. Length 13.0-14.8 mm *T. halffteri* n. sp.



Figs. 1-4, *Diochus nanus*: 1, aedeagus; 2, 6th male abdominal sternite; 3, tergite of male genital segment; 4, sternite of male genital segment.



Figs. 5-8, *Diochus schaumii*: 5, aedeagus; 6, 6th male abdominal sternite; 7, tergite of male genital segment; 8, sternite of male genital segment.



9



11

0.5 mm
11.12



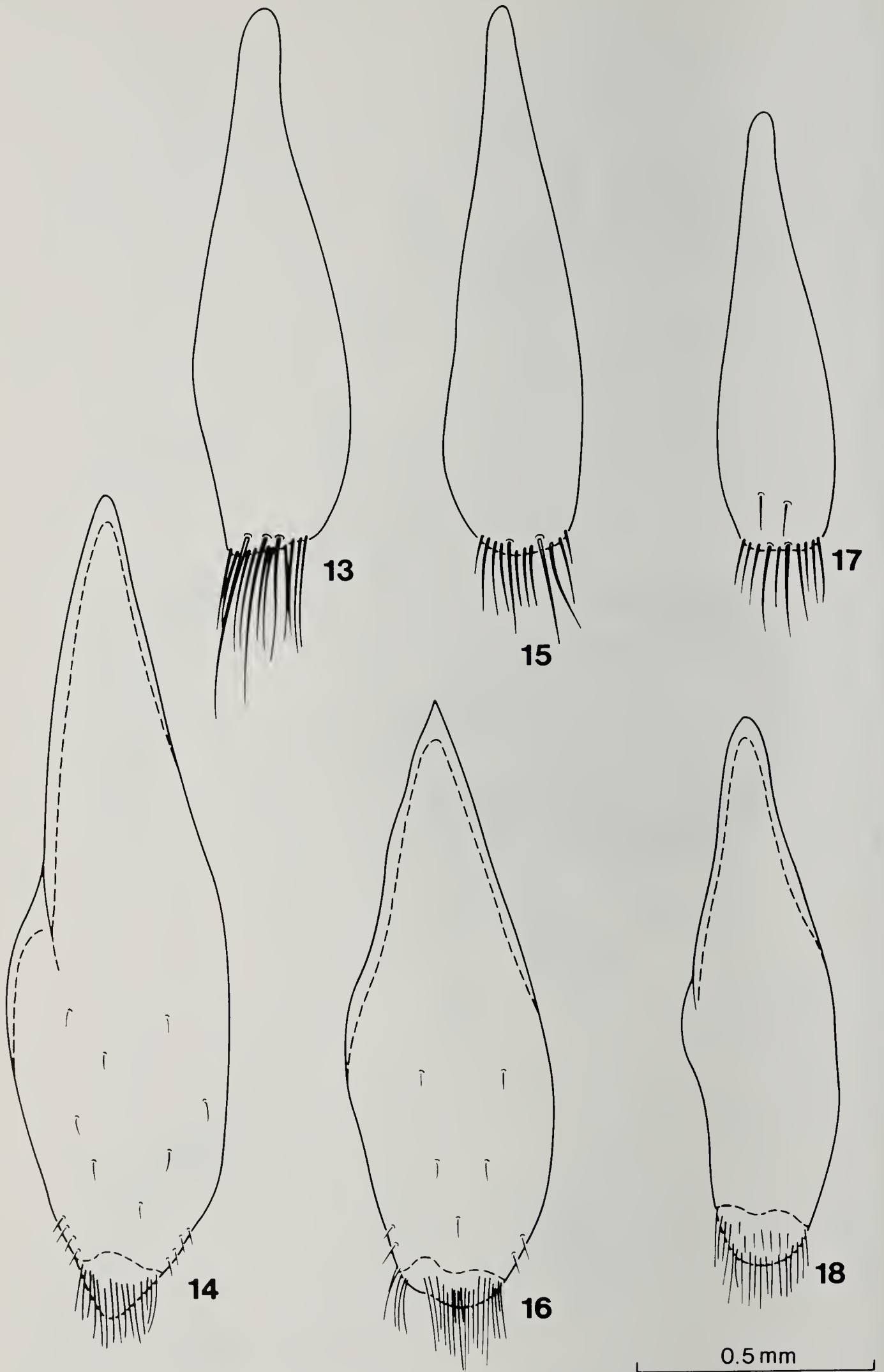
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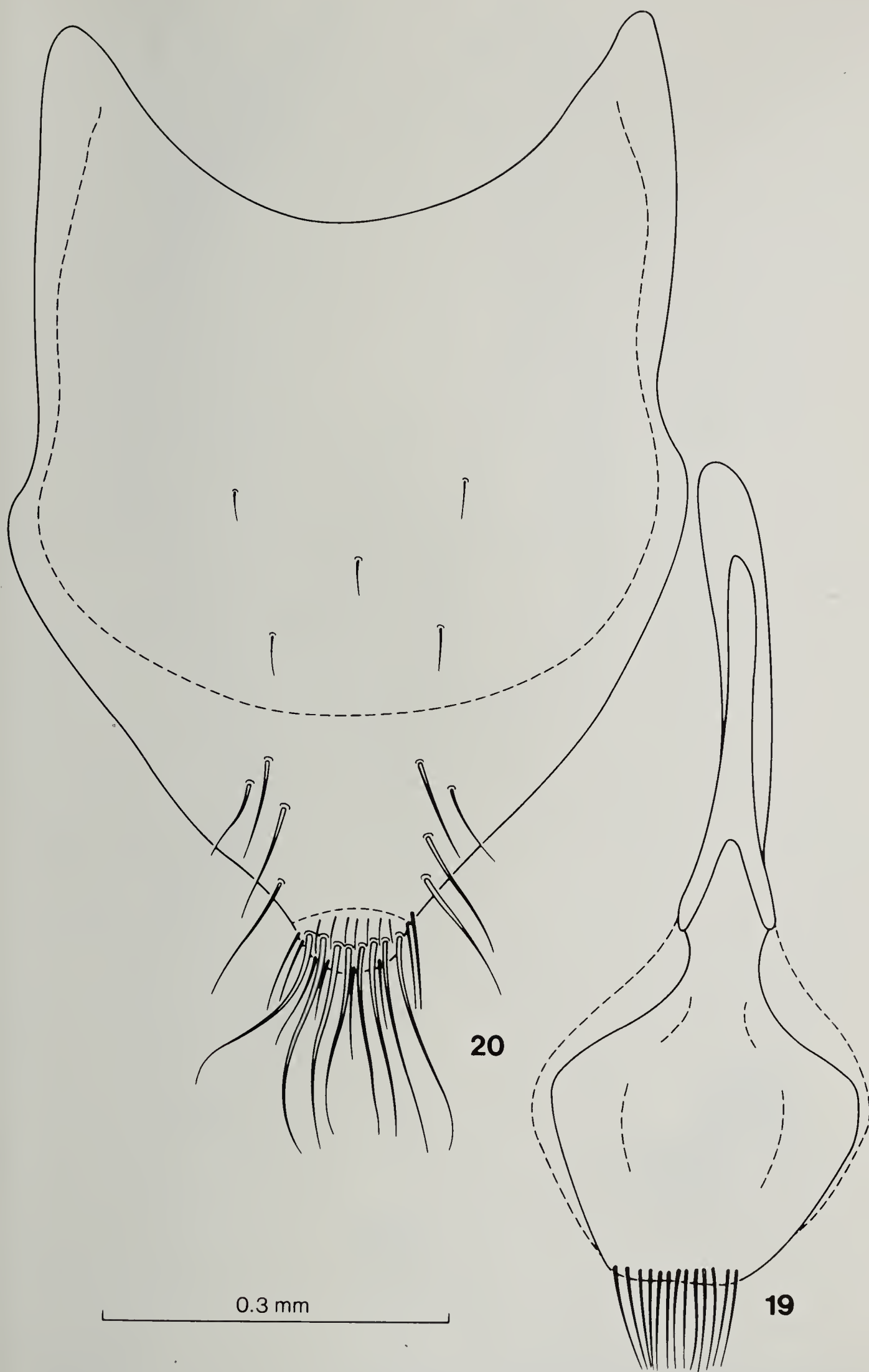
12

0.2 mm
9.10

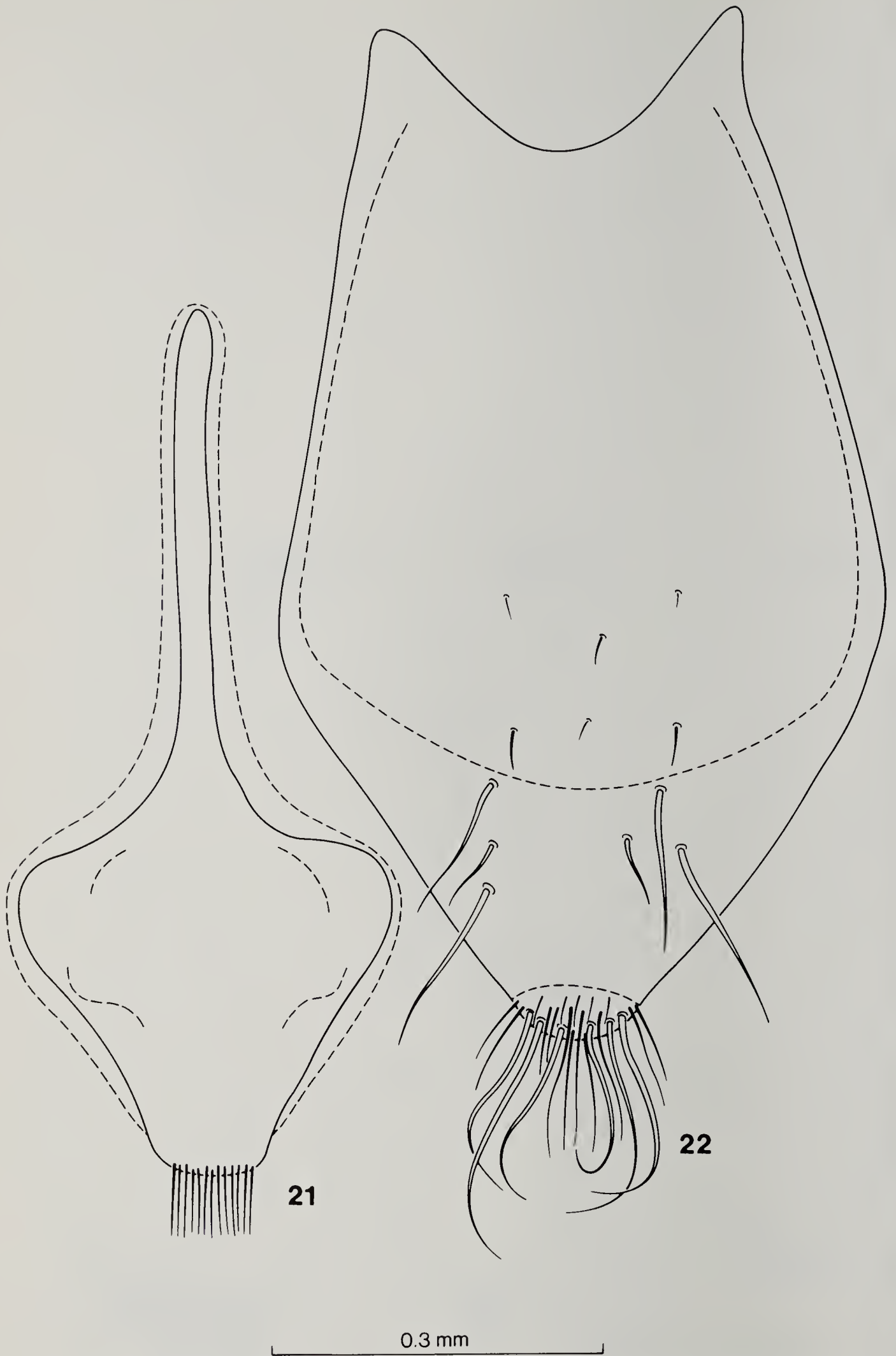
Figs. 9-10, female spermathecae: 9, *Diochus nanus*; 10, *Diochus schauimi*.
Figs. 11, 12, *Homalolinus canaliculatus*: 11, tergite of male genital segment;
12, sternite of male genital segment.



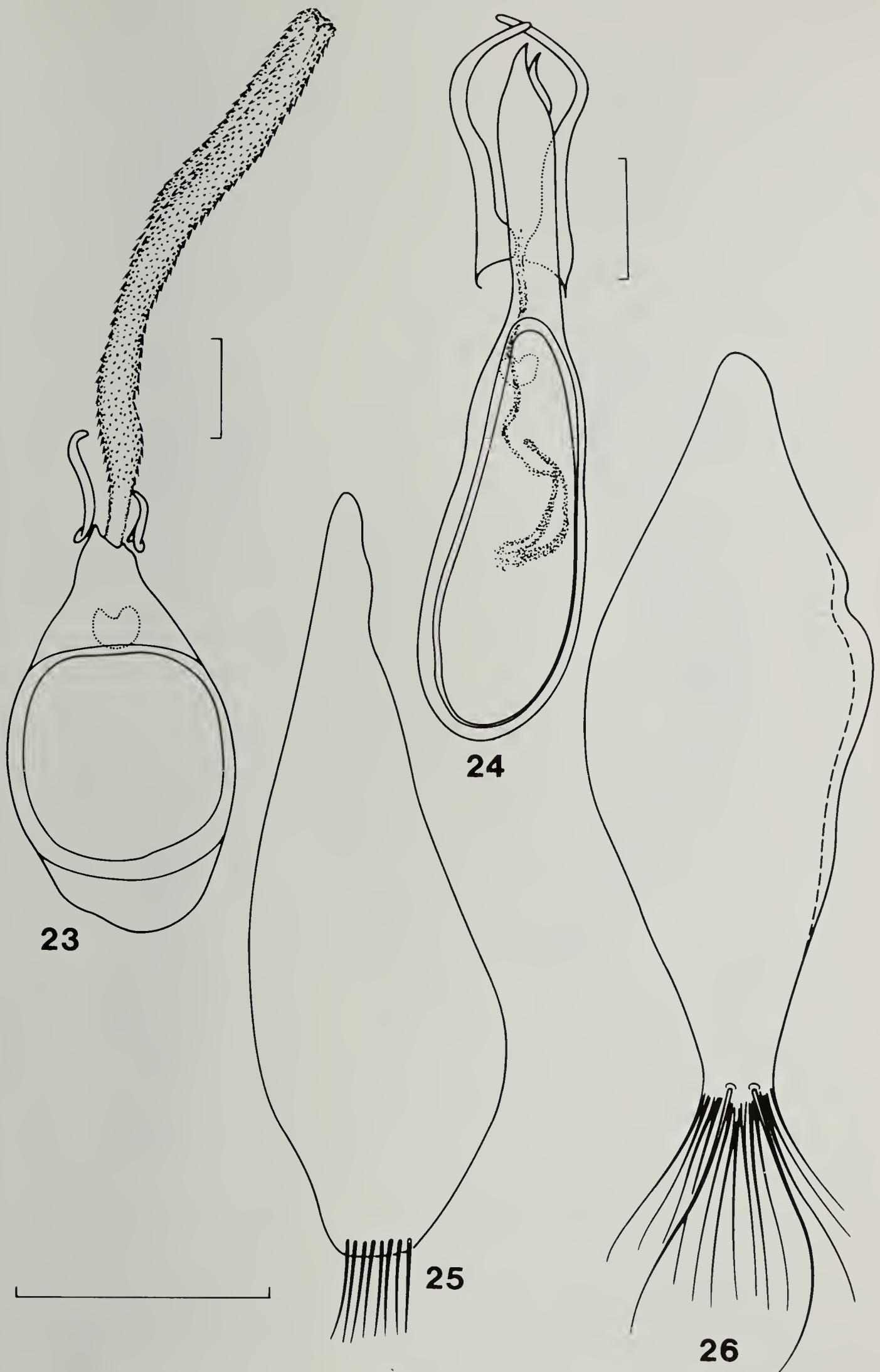
Figs. 13-18, tergites and sternites of male genital segments: 13, 14, *Thyreocephalus puncticeps*; 15, 16, *Thyreocephalus rufipennis*; 17, 18, *Thyreocephalus halffteri*.



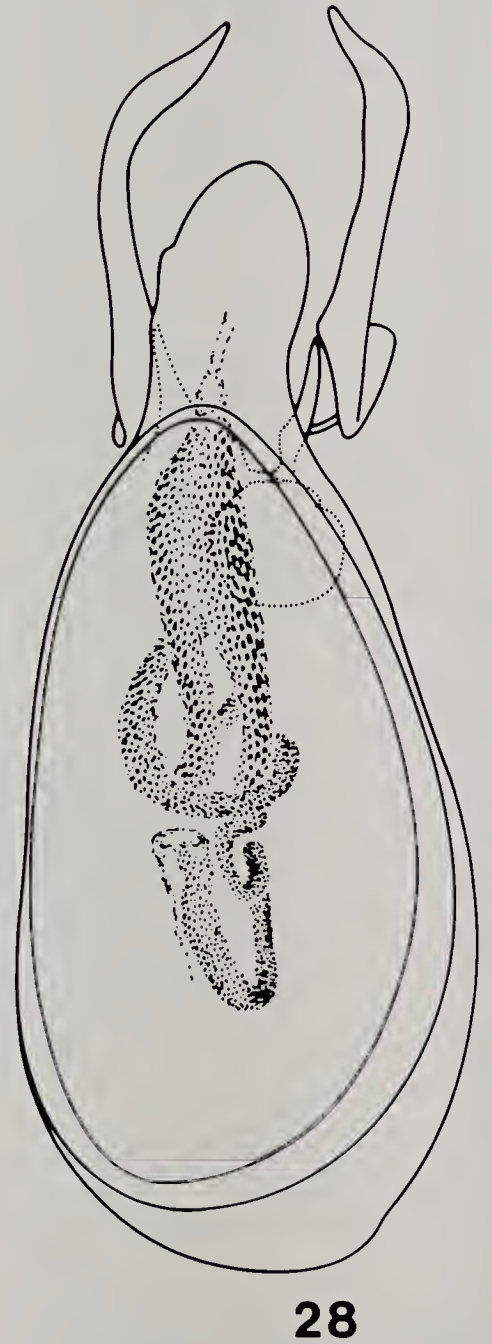
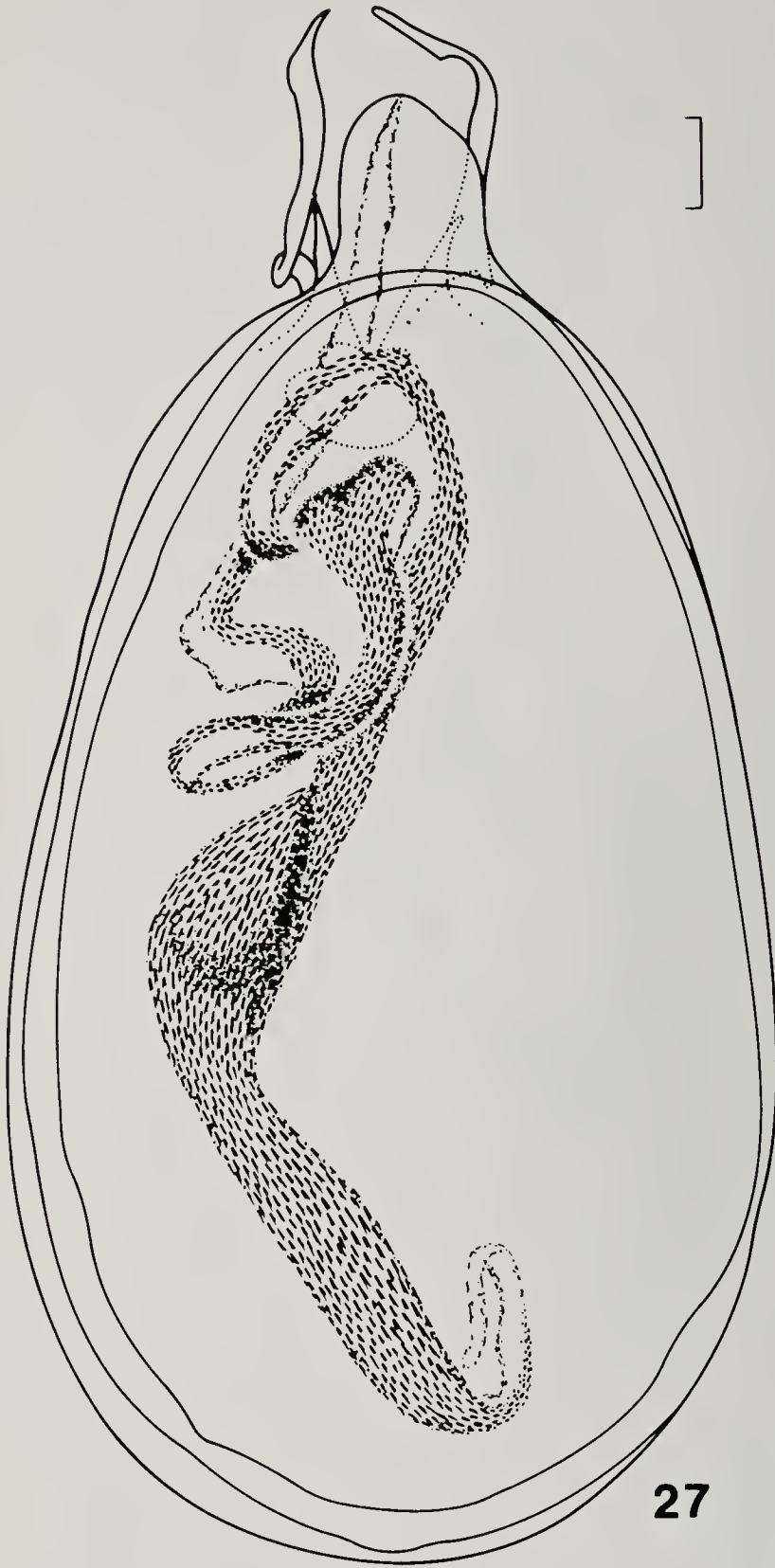
Figs. 19, 20, *Neoxantholinus rufulus*: 19, tergite of male genital segment; 20, sternite of male genital segment.



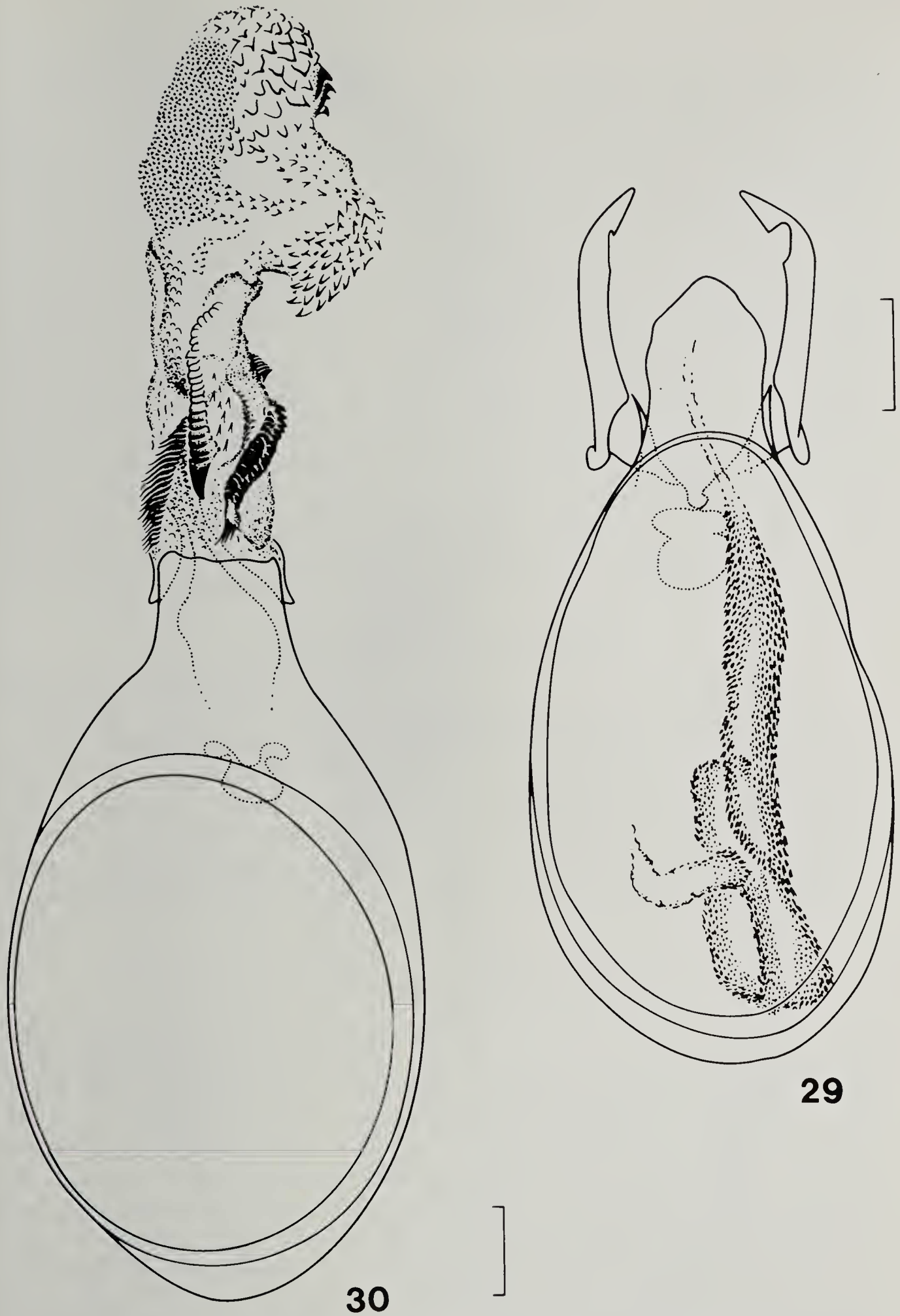
Figs. 21, 22, *Neoxantholinus* spec. (Mexico): 21, tergite of male genital segment; 22, sternite of male genital segment.



Figs. 23, 24, male aedeagus: 23, *Neoxantholinus cyaneipennis*; 24, *Homalolinus canaliculatus*. Figs. 25, 26, *Neoxantholinus cyaneipennis*: 25, tergite of male genital segment; 26, sternite of male genital segment (small scale = 0.2 mm, large scale = 0.5 mm).



Figs. 27, 28, aedeagus: 27, *Thyreocephalus puncticeps*; 28, *Thyreocephalus halfferi* (scale = 0.2 mm).



Figs. 29, 30, aedeagus: 29, *Thyrecephalus rufipennis*; 30, *Neoxantholinus rufulus* (scale = 0.2 mm).

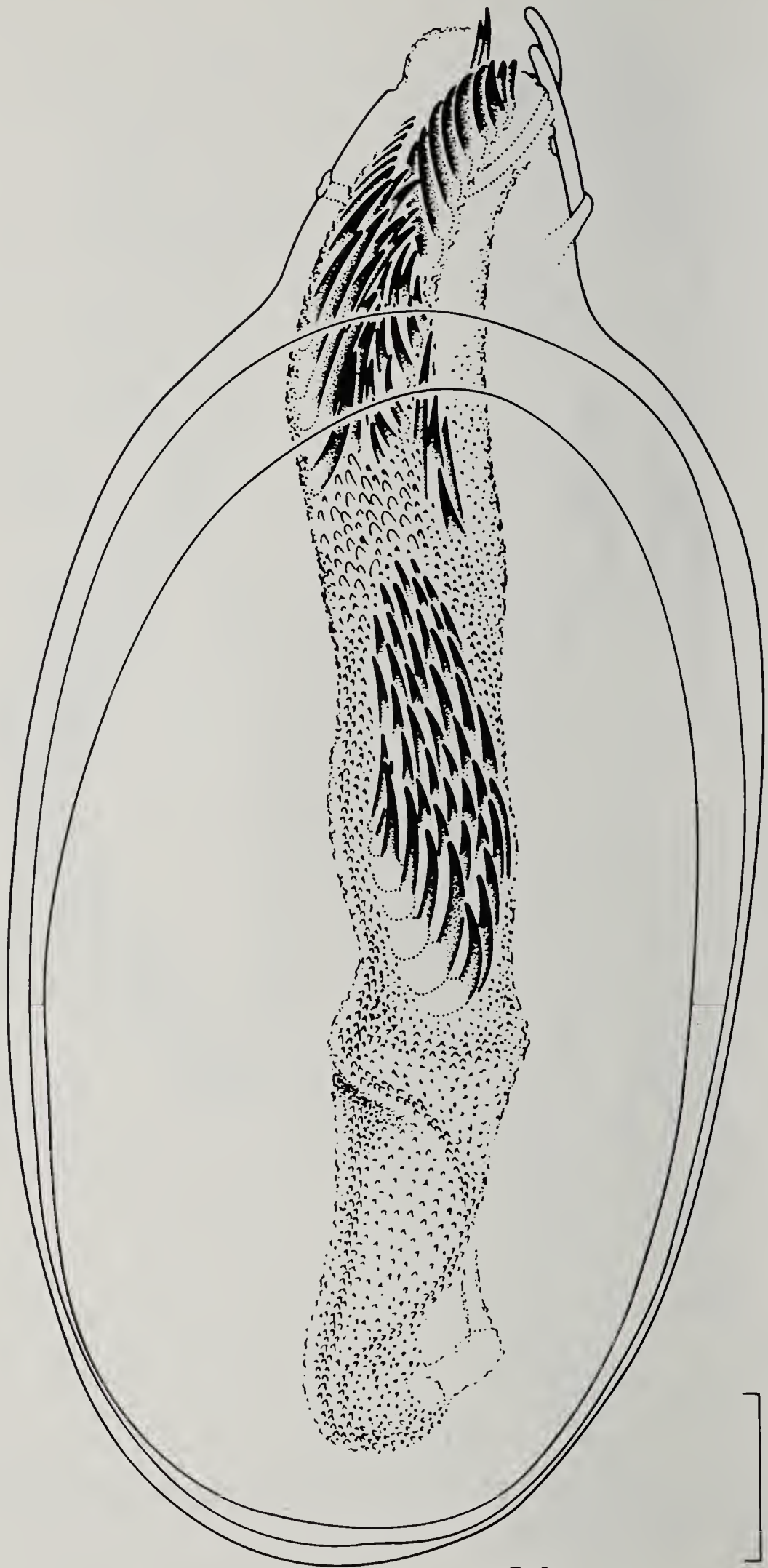
**31**

Fig. 31, aedeagus of *Neoxantholinus spec.* (Mexico). Scale = 0.2 mm.

Neoxantholinus Cameron*Neoxantholinus* Cameron 1944:783

The genus was erected by Cameron (l.c.) to include 2 New Zealand species, *N. rufulus* Broun and *N. brouni* Sharp, previously assigned to the genus *Metoponcus* Kraatz. Steel (1948:268) suggested that the neotropical genus *Oligolinus auct. (nec Casey 1906:420)* was identical with *Neoxantholinus* and that all species listed in this genus by Bernhauer & Schubert (1914:291) belonged in fact to *Neoxantholinus*. He also assigned the Australian *Metoponcus cyaneipennis* Macleay to the same genus. My comparison of the holotype of *N. rufulus* (see below) with adults of one Mexican species of *Oligolinus auct.* (closely related to *O. varians* Sharp) confirmed Steel's opinion. Both species share the same important generic characters, and also the male genital segments and aedoeagi are developed in a very similar way in both species (see Figs. 19-22, 30, 31). On the other hand, *N. cyaneipennis* adults seem to differ in some external characters (e.g. the antennae resemble more those of the palaeartic species of *Metoponcus*), and the male genital segment and the aedoeagus are developed differently (Figs. 23, 25, 26), so that this species may be generically different. To the best of my knowledge, all species included in Scheerpeltz's (1953:604) key to all known species of *Oligolinus auct.* should be reassigned to *Neoxantholinus*.

Neoxantholinus rufulus (Broun)*Metoponcus rufulus* Broun 1880:106

The species was described from a single specimen from Parua (see Broun, l.c.). The male holotype in the collection of the British Museum (Natural History), is labelled as follows: "Type" (round label with red margin)/"New Zealand Broun Coll.Brit.Mus.1922-482"/"Parua.Whangarei."/"*Metoponcus rufulus*". The specimen is in very good condition, except the right antenna is lacking 6 segments. It was dissected and the aedeoagus and the genital segment were mounted. These parts are illustrated by Figs. 19, 20, 30.

Neoxantholinus guatemalensis (Sharp)*Metoponcus guatemalensis* Sharp 1885:503

The species was described from 2 specimens from San Gerónimo, Guatemala. I had the opportunity to study 1 female specimen from the collection of the British Museum (Natural History), labelled as follows: "*Metoponcus guatemalensis*.Type.D.S. S.Geronimo.Guat.Champion" (on plate with beetle)/"Type" (round label with red margin)/"San Geronimo, Vera Paz.Champion."/"B.C.A.Col.I.2. *Metoponcus guatemalensis*,Sharp."/"Sharp Coll.1905.-313." The specimen was dissected, and the genital segment was glued separately on the plate with the beetle. The specimen is hereby designated as lectotype of *N. guatemalensis*; the label "Lectotype *Metoponcus guatemalensis* Sharp A.Smetana des.1977", and my determination label "*Neoxantholinus guatemalensis* (Shp.)" were attached to it.

In this species, the temples are delimited by a fine linear ridge ventrally, and the abdominal tergites are without microsculpture, except for excessively fine and superficial, hardly detectable rudimentary microsculpture on laterobasal portions of the first visible tergite.

Neoxantholinus lineatus (Schubert)*Metoponcus lineatus* Schubert 1909:296

The species was described from specimen(s?) from Jalapa, Mexico (Schubert 1909:287). The collection of the Museum für Naturkunde der Humboldt-Universität zu Berlin contains 1 female specimen under the name *M. lineatus*. It is labelled as follows: "Metoponcus lineatus m.sp.type."/"Jalapa Mexico F.Schneider"/"lineatus m." (large green label). The specimen was dissected, and the genital segment was glued separately on the plate with the beetle. The specimen is hereby designated as lectotype of *N. lineatus*; the label "Lectotype Metoponcus lineatus Schub. A.Smetana des. 1977" and my determination label "*Neoxantholinus lineatus* (Schub.)" were attached to it. The left middle leg and right elytron are missing in this specimen.

Adults of this species are very similar to those of *N. guatemalensis*, but the temples are not delimited by a linear ridge ventrally, and the abdominal tergites are covered with distinct microsculpture of very fine transverse waves.

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